Claims

Sub. cl> 1.A power actuated piston tool with piston automatic return, comprising an external barrel with a guiding barrel situated there within, a piston means mounted for reciprocation within said guiding barrel, between firing position and fastening position, a firing-pin assembly, situated at the rear end of external barrel, operatively connected therewith, and means for automatic return of piston means from its fastening position to its firing position, situated on piston shank between piston head and fastener guide, said means for automatic piston return is a one-piece elastic returning bush (7) made of elastomeric material in the shape of bellow, whose diameters both external and internal are regularly varied. creating uniformly spaced swellings and narrowings of wave like structure.

2.A power actuated piston tool, according to claim 1, wherein the walls of returning bush (7) are approximate in shape to a sinusoid, or to a stack of frusto-spherical segments, or to a stack of frusto-conical segments, or to a stack of barrel shape segments and/or other surface of revolution segments.

3.A power actuated piston tool, according to claim 1 or 2 , wherein the maximal internal diameter (D4) of at least one segment of the returning bush (7) at its both ends , is of smaller size than respective diameter (D2) of the remaining segments.

4.A power actuated piston tool, according to claim 1 or 2, wherein the end segment walls of returning bush (7) are thicker than other segment walls.

5. A power actuated piston tool, according to claim 1 or 2, wherein the internal end surface of external segments of returning bush (7) is markedly curved outside in such a way, that the position of curvature points (71) is clearly distanced from the returning bush (7) face (72).

6.A power actuated piston tool, according to claim 1or 2, wherein the length of the returning bush (7) is selected in such a way, that after initial blocking, the piston shank (1) end face does not reach its extreme forward position and remains at a distance from the base (30), the distance greater than the head height of fastening element (6).

7. A power actuated piston tool, according to claim 1or 2, wherein the maximal external diameter (D1) of the returning bush (7) is smaller enough than the internal diameter of the guiding barrel (2), that after initial blocking of the returning bush (7), its external diameter still remains smaller than the internal diameter of the guiding bush (2), thus preserving the small clearance.